REMARKS

Claims 1-41 are pending in this application. Claims 1-39 have been amended to define still more clearly what Applicant regards as the invention. Claims 1, 3, 16, 19, 20, and 30 are independent.

At paragraph 2 of the Office Action, the Examiner has asked that the status of the copending U.S. applications cited in the Information Disclosure Statement filed on February 18, 2002, be updated. Applicant has complied with this request by submitting herewith a Form PTO-1449 which gives the numbers of now-available published documents corresponding to those applications. Applicant notes that the information has already been cited in the mentioned Information Disclosure Statement, and that no fee or certification is required at this time.

Claim 5 was objected to under 37 C.F.R. § 1.75(a) because the phrase "the required quality level" lacked antecedent basis. Applicant has corrected Claim 5 in accordance with the suggestion kindly offered by the Examiner.

Claims 1-15, 19-29, 32-34, 36, 38, and 40 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,711,297 B1 to Chang et al. (hereinafter referred to as "Chang").[1/] Claims 16-18, 30, 31, 35, 37, 39, and 41 were rejected under 35 U.S.C. § 103(a) as being obvious from Chang in view of U.S. Patent 6,041,143 A to Chui et al.

Chang, as understood by Applicant, relates to a method and system for transferring data (e.g., of an image) from a server 140 to one or more clients 150 (see

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1/Applicant notes that Chang is prior art only under 35 U.S.C. § 102(e).

Figure 1). As depicted in Figure 1 and discussed at column 5, lines 17-21 and lines 37-45, a source image 110 is processed by decomposition processing 120 to generate a pyramidal data structure 130. The server 140 transmits to client 150 transformations of the source image 110 to re-create images and sub-images in the client 150. The dynamic transfer syntax system 100 in Chang transfers only the coefficient data required to reconstruct a requested image at the client.

As depicted in Figure 3 of Chang and as discussed at column 9, lines 23 et seq., a user defines selection through a keyboard 370 to pan or zoom in on an image. The client application 340 generates the pixel coordinates, with reference to the original source image, to define the image area and the resolution of the source image selected by the user. Mapping 330 receives the pixel coordinates and generates physical coefficient coordinates that map to the pixel coordinates. The physical coefficient coordinates define the range of coefficients, stored as the pyramidal data structure, necessary to reconstruct the image defined by the pixel coordinates. In other words, the pixel coordinates for the selected sub-image are mapped to coefficient coordinates to identify coefficients in the pyramidal data structure as depicted in Figure 4 and discussed at column 11, lines 15-27. The physical coefficient coordinates are then transferred, as a request, from the client 150 to the server 140 (column 5, lines 58-60). In response to the client's request, the server 140 receives the coefficient coordinates and transmits over the network 160 the coefficients identified by the coefficient coordinates. The client 150 then receives the coefficients and processes them in transform processing 350. Transform processing 350 is the reverse transform used in decomposition processing 120 and therefore leads to pixel data that is subsequently displayed on the monitor 380.

Figures 6A and 6B of Chang illustrate a zoom operation, whereas Figures 7A and 7B illustrate a pan operation. For instance, as shown in Figure 6A, the client displays a 512 x 512 low-pass image (see Figure 6A). Next, the client requests additional coefficient coordinates sufficient to display a portion of the source image at a higher resolution in order to execute zoom operation. As shown in Figure 6B, the server responds to the request by transmitting three packets of coefficients to display the new view at the higher resolution. The high-pass coordinates transferred provide the additional information necessary to generate the new image.

Claim 1 is directed to a method of processing a coded digital signal including (1) a set of samples of different types obtained by coding a set of original samples representing physical quantities, and (2) a set of information representing original samples and parameters used during the coding. The method includes the step of determining a subset of samples corresponding to a selected part of the original digital signal using the set of information, and obtaining a number of samples of at least one predetermined type and which are contained in the determined subset of samples. The method further includes the step of deciding whether or not to modify the determined subset of samples according to the obtained number of samples of the predetermined type(s), before restoring the selected part of the original signal.

In Chang, as depicted in Figure 4 and as discussed from column 11, line 6, to column 12, line 6, the server transfers an initial view to the client in response to a request from the server (block 410 Figure 4), the initial view is displayed in a small screen area, and the client application (block 340 Figure 3) permits a user to select the new view of the source image. If a user selects a new view, then the client application determines the

pixel coordinates of the new view which are then mapped to coefficient coordinates to identify coefficients in the pyramidal data structure (block 440 Figure 4; and column 11, lines 6-27). As discussed at column 11, lines 59-62, after defining the physical coefficient coordinates required for the new view, the client application requests the additional coefficient coordinates required to display the new view (block 450 Figure 4).

Even if Chang is deemed to discuss a process in which the user selects a new image and the client application identifies the coefficients in the pyramidal data structure that are necessary to reconstruct the requested new view, however, Applicant has found nothing in Chang that would teach or suggest any step of deciding with regard to a modification of this determined subset of samples according to the number of samples thus obtained, this being done before decoding and therefore before restoring the selected part of the original signal.

Indeed, in Chang any decision of modifying the subset of samples (initial view; column 12, lines 29-32) is performed after the user has viewed the subset of samples (after having viewed the initial view displayed on the client screen; column 12, lines 25-29). This means that in Chang this decision is made after decoding and therefore after restoring the subset of samples.

On the contrary, in Claim 1 the decision with regard to a modification of the determined subset of samples is made before decoding or restoring the corresponding selected part of the original signal.

Furthermore, in Claim 1, the step of determining the subset of samples corresponding to a selected part of the original digital signal is performed using the set of information included in the coded digital signal without having to decode this signal.

Likewise, in Claim 1, the step of obtaining the number of samples of at least one predetermined type and which are contained in the determined subset of samples is also performed without decoding the coded digital signal.

Nothing in Chang remotely resembling these steps is performed from a coded digital signal.

Moreover, by virtue of the features of Claim 1, it is possible to estimate the quality of restoration of a selected part of the signal before decoding thereof by determining the number of samples of at least one predetermined type present in the part of the coded signal. According to this given number of samples which represents the quality of restoration of the part of the signal, it is therefore possible to decide whether or not to modify this part in order to influence the quality of restoration (see, e.g., page 3, lines 17-23 of the present specification). Applicant submits that Chang does not offer such a possibility.

For at least the foregoing reasons, Claim 1 is seen to be clearly allowable over Chang.

Independent Claims 3, 16, 19, 20, and 30 each include features which are similar in many respects to the features discussed above in connection with Claim 1. Additionally, with respect to Claims 16 and 30, Chui et al. is not seen to teach or suggest anything which, in Applicant's opinion, would remedy the deficiencies of Chang discussed above, as a reference against Claims 16 and 30. Accordingly, Claims 3, 16, 19, 20, and 30 are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

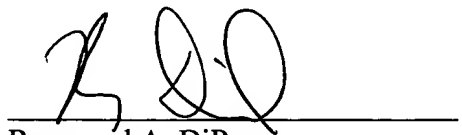
A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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